LPCT/PTO 01 SEP 2004) ATENT COOPERATION TRE

From the INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY 10/50644

Levy, David J. **GLÁXOSMITHKLINE** Corporate IP Department Five Moore Drive P.O. Box 13398 ETATS-UNIS D'AMERIQUE

2004 Research Triangle Park, NC 27709 | GLOBAL INTELLECTUAL PROPERTY

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL PRELIMINARY **EXAMINATION REPORT**

(PCT Rule 71.1)

Date of mailing (day/month/year)

20.02.2004

Applicant's or agent's file reference PU4759WO

International application No.

International filing date (day/month/year)

IMPORTANT NOTIFICATION

Priority date (day/month/year)

PCT/US 03/06022

28.02.2003

01.03.2002

Applicant

To:

SMITHKLINE BEECHAM CORPORATION et al

- The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
- 2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
- 3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

The applicant's attention is drawn to Article 33(5), which provides that the criteria of novelty, inventive step and industrial applicability described in Article 33(2) to (4) merely serve the purposes of international preliminary examination and that "any Contracting State may apply additional or different criteria for the purposes of deciding whether, in that State, the claimed inventions is patentable or not" (see also Article 27(5)). Such additional criteria may relate, for example, to exemptions from patentability, requirements for enabling disclosure, clarity and support for the claims.

Name and mailing address of the international preliminary examining authority:



European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016

Authorized Officer

Janzing, M

Tel. +31 70 340-4140



Rec'd PCT/PTO 0.1 SEP 2004 TENT COOPERATION TREETY

PCT

REC'D 2'3 FEB 2004

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

10/506447

Applicant's or agent's file reference FOR FURTHER ACTI				FOR FURTHER ACT	See Notification	on of Transmittal of International xamination Report (Form PCT/IPEA/416)	
PU4759WO International application No.				International filing date (da	ay/month/year)	Priority date (day/month/year) 01.03.2002	
PCT/US 03/06022 28.02.2003					· · · · · · · · · · · · · · · · · · ·	000.2002	
			t Classification (IPC) or bo	oth national classification an	a IPC		
COA	C07D403/12						
Applic	Applicant SMITHKLINE BEECHAM CORPORATION et al						
Sivii	SMITHRLINE BEECHAM CORPORATION of all						
This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.							
2.	2. This REPORT consists of a total of 5 sheets, including this cover sheet.						
	This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).						
	Thes	e anr	nexes consist of a total	of sheets.			
					•		
	— -						
	Thio		t contains indications re	elating to the following ite	ems:	, v	
3.	_	_		Jaming to the remaining in	•		
]		Basis of the opinion			• -8-	
		⋈	Priority Non-establishment of	opinion with regard to no	ovelty, inventive step	p and industrial applicability.	
İ	١٧		Lack of unity of invent				
	٧	☒	Resconed statement	under Rule 66.2(a)(ii) wii tions supporting such sta	th regard to novelty, tement	inventive step or industrial applicability;	
	VI		Certain documents ci				
	VII			international application			
	VIII		Certain observations	on the international appli	ication		
Date of submission of the demand Date of completion of this report							
Date of submission of the demand					Date of completion a	•	
08.09.2003				20.02.2004			
Name and mailing address of the international				onal	Authorized Officer	STATUES ADDING	
preliminary examining authority:				3, 5818 Patentlaan 2			
NL-2280 HV Rijswijk - Pays Bas Tol. 121 70 340 - 2040 Tx; 31 651 epo nl				Has	Allard, M	We will see the second	
Fax: +31 70 340 - 3016				Telephone No. +31	70 340-2002		

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US 03/06022

I.	Basis	of the	report
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1. With regard to the **elements** of the international application (Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)):

	De	Description, Pages					
	1-2	223	as originally filed				
	٥.						
	Gla	aims, Numbers					
	1-6	80	as originally filed				
2.	Wi lan	th regard to the langu guage in which the in	age, all the elements marked above were available or furnished to this Authority in the ternational application was filed, unless otherwise indicated under this item.				
	Th	ese elements were av	railable or furnished to this Authority in the following language: , which is:				
		the language of a tr	anslation furnished for the purposes of the international search (under Rule 23.1(b)).				
		lication of the international application (under Rule 48.3(b)).					
		the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).					
3.	With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:						
	☐ contained in the international application in written form.						
		filed together with th	e international application in computer readable form.				
		furnished subseque	ntly to this Authority in written form.				
		furnished subseque	ntly to this Authority in computer readable form.				
	The statement that the subsequently furnished written sequence listing does not go beyond the distinct in the international application as filed has been furnished.						
		The statement that t listing has been furn	he information recorded in computer readable form is identical to the written sequence ished.				
4.	The	The amendments have resulted in the cancellation of:					
		the description,	pages:				
		the claims,	Nos.:				
		the drawings,	sheets:				
5.		This report has been been considered to g	established as if (some of) the amendments had not been made, since they have go beyond the disclosure as filed (Rule 70.2(c)).				
		(Any replacement sh report.)	neet containing such amendments must be referred to under item 1 and annexed to this				
6.	Add	litional observations, i	f necessary:				

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US 03/06022

II. Non-establishment of opinion with regard to novelty	inventive step and indu	strial applicability
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1.	The obv	he questions whether the claimed invention appears to be novel, to involve an inventive step (to be non- bvious), or to be industrially applicable have not been examined in respect of:					
		the entire international application,					
	\boxtimes	claims Nos. 1, 2, 23-60 (all in part)					
		because:					
	×	the said international application, or the said claims Nos. 34, 35, 39-59 relate to the following subject matter which does not require an international preliminary examination (specify):					
		see separate sheet	e separate sheet				
		the description, claims or drawings (indicate particular elements below) or said claims Nos. are so unclear that no meaningful opinion could be formed (specify):					
		the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.					
	Ø	no international search report	has be	en establish	ed for the said claims Nos. 1, 2, 23-60 (all in part)		
A meaningful international preliminary examination cannot be carried out due to the failure of the nucleor amino acid sequence listing to comply with the standard provided for in Annex C of the Administrations:				nnot be carried out due to the failure of the nucleotide and/ ndard provided for in Annex C of the Administrative			
		the written form has not been furnished or does not comply with the Standard.					
		the computer readable form ha	as not	been furnish	ed or does not comply with the Standard.		
V.	Rea cita	asoned statement under Artic tions and explanations supp	le 35() orting	2) with rega such stater	rd to novelty, inventive step or industrial applicability; nent		
1.	Sta	Statement					
	Novelty (N)		Yes: No:	Claims Claims	1-60		
	Inventive step (IS)		Yes: No:	Claims Claims	1-60		
	Indi	ustrial applicability (IA)	Yes: No:	Claims Claims	1-33, 36-38, 60		
2.	Cita	ations and explanations			•		
	see	separate sheet					

EXAMINATION REPORT - SEPARATE SHEET

Reference is made to the following document:

D1: WO 97 19065 A (CELLTECH THERAPEUTICS LIMITED) 29 May 1997 (1997-05-29)

Re Item III

Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The present international preliminary examination is limited to the parts of the claims which have been subject-matter of a complete international search report, i.e. to compounds of formula (I), their salts and solvates, and to their use.

Claims 34, 35 and 39-59 relate furthermore to subject-matter considered by this Authority to be covered by the provisions of Rule 67.1(iv) PCT. Consequently, no opinion will be formulated with respect to the industrial applicability of the subjectmatter of these claims (Article 34(4)(a)(I) PCT).

Re Item V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Novelty (Article 33(2) PCT)

The subject-matter of claims 1-60 is not disclosed in the available prior art and is therefore novel.

Inventive step (Article 33(3) PCT)

D1, which is considered to represent the closest prior art, describes substituted 2anilino-pyrimidines useful as protein kinases inhibitors, particularly in hyperproliferative disorders like tumours, see passage bridging pages 14 and 15. In particular, D1 discloses a N4-(benzimidazolyl)-N2-(aryl)-pyrimidinediamine derivative having such activity, see example 101.

INTERNATIONAL PRELIMINARY International application No. PCT/US03/06022 EXAMINATION REPORT - SEPARATE SHEET

In the light of the teachings of D1 the problem underlying an solved by the present application can be seen in the provision of further tyrosine kinases inhibiting pyrimidinediamine derivatives.

The variation of the substituents of the aryl and/or the benzimidazolyl residue in the compound disclosed in D1, as proposed in the present application to solve the given problem, is however a common measure in the design of alternative medicaments, which does not involve an inventive step.

The subject-matter of claims 1-60 lacks therefore an inventive step.

Industrial applicability (Article 33(4) PCT

The compounds, compositions and use of claims 1-33, 36-38 and 60 can be applied in the pharmaceutical industry.